

## ABSTRACT

5       **Flexible factory joint for metallic tubes which enclose loosely inside  
          them optical fibers and its method of construction**

10       Flexible joint which is used for the repair during the production of metallic  
          tubes which enclose loosely inside them optical fibers, surrounded by a  
          suitable filling material or for the connection of long lengths of the above  
          mentioned tubes during the manufacturing of submarine cables which contain  
          these tubes.

15       The joint comprises a connecting metallic tube (6), which connects externally  
          with overlapping at its ends the metallic tubes (3, 10) after splicing is  
          performed between the optical fibers which they enclose and which are  
          separated in bundles (1, 2).

20       The mechanical connection of the joint is achieved through plastic  
          deformation of the over-applied connecting metallic tube by creating grooved  
          rings (11) at the sections where it overlaps the metallic tubes to be connected  
          (3,10). The water tightness of the joint is obtained by welding the ends (8) of  
          the over-applied connecting metallic tube (6) to the external surface of the  
          metallic tubes to be connected (3, 10). In the case the metallic tubes carry a  
          plastic coating (4), this is restored in the area of the joint (9, 5).